

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-20. (Canceled)

21. (New) A machine (20) for the working of sheet metal parts (1, 2), comprising
a tool-carrying unit (10; 11, 12);
a workpiece-carrying structure (88); a supporting structure (24, 26);
a movable unit (28) which carries the tool-carrying unit (10; 11, 12) and is slidably
mounted on the supporting structure (24, 26) along a first direction (Z), or working direction; and
a first driving system for controlling the movement of the movable unit (28) in the first
direction (Z), the first driving system including a first driving shaft (62), a first motor unit (60)
for controlling the rotation of the first driving shaft (62) and a mechanism for converting the
rotational movement of the first driving shaft (62) into the translational movement of the
movable unit (28), wherein the said mechanism comprises a first cam member (76) driven by the
driving shaft (62) and a first engagement surface (86) arranged to co-operate with an outline
(76a) of the first cam member (76) to bring about a first working movement of the movable unit
(28);

characterized in that the first engagement surface (86) is provided by the workpiece-carrying structure (88).

22. (New) A machine according to Claim 21, wherein the first engagement surface (86) is provided on an opposite side of the workpiece-carrying structure (88) to the one on which the metal parts (1, 2) to be worked are arranged.

23. (New) A machine according to Claim 21, wherein the first engagement surface is a cylindrical surface provided by a first roller member (86) rotatably mounted on the workpiece-carrying structure (88).

24. (New) A machine according to Claim 21, wherein the cam member (76) is carried by the movable unit (28).

25. (New) A machine according to Claim 24, wherein the first driving shaft (62) is carried by the movable unit (28) and the cam member (76) is mounted on the first driving shaft (62).

26. (New) A machine according to Claim 25, wherein the first motor unit (60) is also carried by the movable unit (28).

27. (New) A machine according to Claim 21, wherein the mechanism for converting the rotational movement of the shaft (62) into the translational movement of the movable unit (28) further comprises a second engagement surface (78) arranged to co-operate with the outline (76a) of the first cam member (76) to bring about a return movement of the movable unit (28).

28. (New) A machine according to Claim 27, wherein the second engagement surface (78) is on an opposite side of the first cam member (76) to the first engagement surface (86).

29. (New) A machine according to Claim 27, wherein the second engagement surface is a cylindrical surface provided by a second roller member (78) rotatably mounted on the supporting structure (24, 26).

30. (New) A machine according to Claim 29, wherein the axes of rotation of the first cam member (76), of the first roller member (86) and of the second roller member (78) are substantially aligned along the first direction (Z).

31. (New) A machine according to Claim 21, wherein the mechanism for converting the rotational movement of the first shaft (62) into the translational movement of the movable unit (28) further comprises a second cam member (72) driven by the first driving shaft (62) and a third engagement surface (90) arranged to co-operate with the second cam member (72) to bring about a second working movement of the movable unit (28).

32. (New) A machine according to Claim 31, wherein the direction of the said first working movement of the movable unit (28) is the same as that of the said second working movement.

33. (New) A machine according to Claim 32,
wherein the tool-carrying unit (10; 11, 12) carries a first pre-flanging tool (11) and a second final-flanging tool (12) in such a manner that the machine is adapted to perform a flanging operation in a first pre-flanging phase and in a second final-flanging phase, and
the first driving system is configured in such a manner to drive the said first working movement of the movable unit (28) to perform the pre-flanging phase and the said second working movement of the movable unit (28) to perform the final-flanging phase.

34. (New) A machine according to Claim 21, further comprising a stationary base (22), wherein the supporting structure (24, 26) is slidably mounted on the stationary base (22) along a second direction (X), substantially perpendicular to the first direction (Z), in such a manner that the movable unit (28) can be moved towards and away from the workpiece-carrying structure (88).

35. (New) A machine according to Claim 34, further comprising a second driving system for controlling the movement of the movable unit (28) along the second direction (X),

wherein the said second driving system includes a second motor unit (34) and a crank mechanism (36) for converting the rotational movement outputted by the second motor unit (34) into the translational movement of the movable unit (28) along the second direction (X).